IN THE UNITED STATES PATENT AND TRADEMARK OFFICE In re Patent Application of

Y. UEDA et al

Serial No.

Filed: August 3, 2001

For: CHIP, GENOMIC DRUG PRESCRIPTION SUPPORT SYSTEM,

CHIP INFORMATION OFFERING SYSTEM, CHIP SUPPLY SYSTEM,

AND COMPUTER STORAGE MEDIUM

## PRELIMINARY AMENDMENT

Commissioner for Patents Washington, D.C. 20231

Sir:

Prior to the examination thereof, please the aboveidentified application as follows.

## IN THE CLAIMS

Please cancel both claims numbered 20 and reinsert them as new claims 22 and 23 as set forth below.

--22. A computer storage medium which carries a program recorded thereon to cause a computer to function as a genomic drug prescription providing system, comprising:

storing means for storing action information which shows the relationship between related nucleotide sequences and the results of taking the genomic drug;

input means for inputting hybridization pattern information which shows the polymorphisms of related nucleotide sequences of a patient for whom the drug is going to be prescribed;

comparing means for comparing said action information with said hybridization pattern information and obtaining the result of taking the drug particular to the patient; and

output means for outputting prescription information concerning the genomic drug based on the result.

--23. A computer program to cause a computer to function as a genomic drug prescription providing system, comprising:

storing means for storing action information which shows the relationship between related nucleotide sequences and the results of taking the genomic drug;

input means for inputting hybridization pattern information which shows the polymorphisms of related nucleotide sequences of a patient for whom the drug is going to be prescribed;

comparing means for comparing said action information with said hybridization pattern information and obtaining the result of taking the drug particular to the patient; and

output means for outputting prescription information concerning the genomic drug based on the result.--

## REMARKS

Both claims numbered 20 have been canceled and reinserted as new claims 22 and 23 as set forth below. A clean copy of the claims pending after this amendment is attached for the Examiner's convenience.

Examination is respectfully requested.

Respectfully submitted,

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Date: August 3, 2001

- 1. A chip which comprises probes selectively disposed thereon for acquiring genetic information necessary for prescribing a genomic drug, which is to be prescribed based on the genetic information of an individual.
- 2. The chip as claimed in Claim 1, wherein the genetic information includes genetic information concerning the existence or nonexistence of a drug or medicine to be prohibited from being taken concomitantly with the genomic drug.
- 3. The chip as claimed in Claim 1, wherein the genetic information includes genetic information concerning the possibility of a side effect of the genomic drug.
- 4. The chip as claimed in Claim 1, wherein the genetic information includes genetic information concerning the efficacy or nonefficacy of the genomic drug.
- 5. A genomic drug prescription support system which comprises:

pattern input means for inputting nucleotide sequence hybridization pattern information;

pattern judging means for acquiring genetic information necessary for prescribing a genomic drug to be prescribed based on the genetic information of an individual from the pattern information input by the pattern input means; and

output means for outputting prescription support information concerning the genomic drug based on the genetic information obtained by the pattern judging means.

- 6. The genomic drug prescription support system as claimed in Claim 5, wherein the output means outputs information concerning the existence or nonexistence of a drug or medicine to be prohibited from being taken concomitantly with the genomic drug.
- 7. The genomic drug prescription support system as claimed in Claim 5, wherein the output means outputs information concerning the possibility of a side effect of the genomic drug.

- 8. The genomic drug prescription support system as claimed in Claim 5, wherein the output means outputs information concerning the efficacy or nonefficacy of the genomic drug.
- 9. A genomic drug prescription support system which comprises:

information input means for inputting the genetic information of an individual; and

output means for outputting prescription support information concerning a given genomic drug based on the genetic information input by the information input means.

10. A chip information offering system which comprises: sales information input means for inputting the sales information concerning a chip sold on which probes for acquiring genetic information necessary for prescribing a genomic drug, which is to be prescribed based on the genetic information of an individual, are selectively disposed; and

information offering means for offering, to the purchaser of the chip, information for deriving prescription support

information on the corresponding genomic drug from the hybridization pattern readable from the chip.

## 11. A chip supply system which comprises:

stock watch means for monitoring the number of chips in stock on which probes for acquiring genetic information necessary for prescribing a genomic drug, which is to be prescribed based on the genetic information of an individual, are selectively disposed; and

chip order means for detecting that the stock of chips as monitored by the stock monitoring means has become low and for giving an order for the supply of the chips accordingly.

12. A computer storage medium which carries a program recorded thereon to cause a computer to function as a genomic drug prescription support system, comprising:

pattern input means for inputting nucleotide sequence hybridization pattern information;

pattern judging means for acquiring genetic information necessary for prescribing a genomic drug to be prescribed based on the genetic information of an individual from the pattern information input by the pattern input means; and

output means for outputting prescription support information concerning the genomic drug based on the genetic information obtained by the pattern judging means.

13. A computer storage medium which carries a program recorded thereon to cause a computer to function as a genomic drug prescription support system comprising:

information input means for inputting the genetic information of an individual; and

output means for outputting prescription support information concerning a given genomic drug based on the genetic information input by the information input means.

14. A computer storage medium which carries a program recorded thereon to cause a computer to function as a chip information offering system, comprising:

sales information input means for inputting the sales information concerning a chip sold on which probes for acquiring genetic information necessary for prescribing a genomic drug, which is to be prescribed based on the genetic information of an individual, are selectively disposed; and

information offering means for offering, to the purchaser of the chip, information for deriving prescription support information on the corresponding genomic drug from the hybridization pattern readable from the chip.

- 15. A chip which comprises probes selectively disposed thereon for acquiring genetic information necessary for prescribing a genomic drug, wherein said probes are nucleotide sequences which hybridize with related nucleotide sequences that determine actions of the genomic drug.
- 16. A genomic drug prescription support system comprising:

a memory for storing action information which shows the relationship between related nucleotide sequences and the results of taking the genomic drug;

pattern input means for inputting hybridization pattern information which shows the polymorphisms of related nucleotide sequences of a patient for whom the drug is going to be prescribed;

pattern judging means for comparing said action information with said hybridization pattern information and

obtaining the result of taking the drug particular to the patient; and

output means for outputting prescription support information concerning the genomic drug based on the result obtained by the pattern judging means.

17. A method of making a chip for acquiring genetic information necessary for prescribing a genomic drug comprising:

taking a genome from a human;

obtaining probes from the genome by selectively amplifying nucleotide sequences which hybridize with the related nucleotide sequences that determine actions of the genomic drug;

placing probes on the chip.

- 18. The method of making a chip according to claim 17, wherein the genome is taken from the blood of the human.
- 19. A method for providing prescription information of a genomic drug comprising:

storing action information which shows the relationship between related nucleotide sequences and the results of taking the genomic drug;

inputting hybridization pattern information which shows the polymorphisms of related nucleotide sequences of a patient for whom the drug is going to be prescribed;

comparing said action information with said hybridization pattern information and obtaining the result of taking the drug particular to the patient; and

outputting prescription information concerning the genomic drug based on the result.

21. A computer storage medium which carries a program recorded thereon to cause a computer to function as a genomic drug prescription providing system, comprising steps of:

storing action information which shows the relationship between related nucleotide sequences and the results of taking the genomic drug;

inputting hybridization pattern information which shows the polymorphisms of related nucleotide sequences of a patient for whom the drug is going to be prescribed;

comparing said action information with said hybridization pattern information and obtaining the result of taking the drug particular to the patient; and outputting prescription information concerning the genomic drug based on the result.

22. A computer storage medium which carries a program recorded thereon to cause a computer to function as a genomic drug prescription providing system, comprising:

storing means for storing action information which shows the relationship between related nucleotide sequences and the results of taking the genomic drug;

input means for inputting hybridization pattern information which shows the polymorphisms of related nucleotide sequences of a patient for whom the drug is going to be prescribed:

comparing means for comparing said action information with said hybridization pattern information and obtaining the result of taking the drug particular to the patient; and

output means for outputting prescription information concerning the genomic drug based on the result.

23. A computer program to cause a computer to function as a genomic drug prescription providing system, comprising:

storing means for storing action information which shows the relationship between related nucleotide sequences and the results of taking the genomic drug;

input means for inputting hybridization pattern information which shows the polymorphisms of related nucleotide sequences of a patient for whom the drug is going to be prescribed;

comparing means for comparing said action information with said hybridization pattern information and obtaining the result of taking the drug particular to the patient; and

output means for outputting prescription information concerning the genomic drug based on the result.